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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,675	10/15/2003	U-Lin Ju	BHT-3167-159	3384

7590 06/30/2005

TROXELL LAW OFFICE PLLC
SUITE 1404
5205 LEESBURG PIKE
FALLS CHURCH, VA 22041

EXAMINER

WIMER, MICHAEL C

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/684,675

Applicant(s)

JU, U-LIN

Examiner

Michael C. Wimer

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3,6-11 and 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Max et al. (6603433).

Regarding Claims 1-3,6-11 and 14-16, Max et al. show an antenna structure with housing 20 defined as a column structure with a plurality of “protruders” (best seen in Figure 1 connected between the annular ribs 21 and 22, and a cover 10 formed as a hollow column structure having an opening at one end and a plurality of long channels (Fig. 1), and “weldlines” 21 and 22 are axially mounted and thus spaced to form an interference fit (see column 3, second paragraph) and the weldlines are disposed in the interference region formed between the long channels and long protruders, all arranged as claimed.

Regarding claims 2,3,10 and 11, an RF module forming the helical radiator is shown positioned as claimed in Figures 6 and 7.

Further regarding Claims 6-8 and 14-16, the protruders and channels are formed as recited, and a stopper 17 (of “step shape”) is arranged and formed as recited.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Max et al. (6603433).

In discussing the prior art, Max et al. sets forth a melting process for coupling the antenna components, namely the antenna cap or cover and the inner housing (see col. 1, lines 25-40). Although a specific process step is claimed here in an apparatus claim, the skilled artisan would have found it obvious to employ the high-frequency welding technique known in the prior art, for the components of housing and cover in Max et al.

5. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Max et al. as applied to claims 1 and 9 above, and further in view of Yoakum (6441741).

The specific materials for cover and core (e.g., the housing) are not taught in Max et al. However, these common materials are employed in the art for overmolding of the cover and for the core material or housing as suggested in Yoakum at col. 7, lines 12-55, where the coil antenna 18,20 is formed as a transponder. It would have been obvious to the skilled artisan to employ these common dielectric materials suggested by Yoakum, as the cover and housing in Max et al.

6. The patent to Balthaser et al. (5943026) is cited as of interest showing keyed ridges and recesses for connecting a cover and antenna housing; and the patent to Ye (6664929) is cited as showing annular ridges and recesses for coupling of housing and cover.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Wimer whose telephone number is (571) 272-1833. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun O. Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael C. Wimer
Primary Examiner
Art Unit 2828